Center's Internet Web Page URL Address:  http://tsc.wes.army.mil

CADD/GIS Technology Center

- Originally established as the "Tri-Service CADD/GIS Technology Center" in 1992 at the Army Waterways Experiment Station, Information Technology Laboratory, Vicksburg, Mississippi .

- Established by the Army (including Army Corps of Engineers), Navy, and Air Force (i.e, Tri-Services).

- Center's name changed to "CADD/GIS Technology Center for facilities, infrastructure, and environment" in July, 1999 to reflect a broader mission.

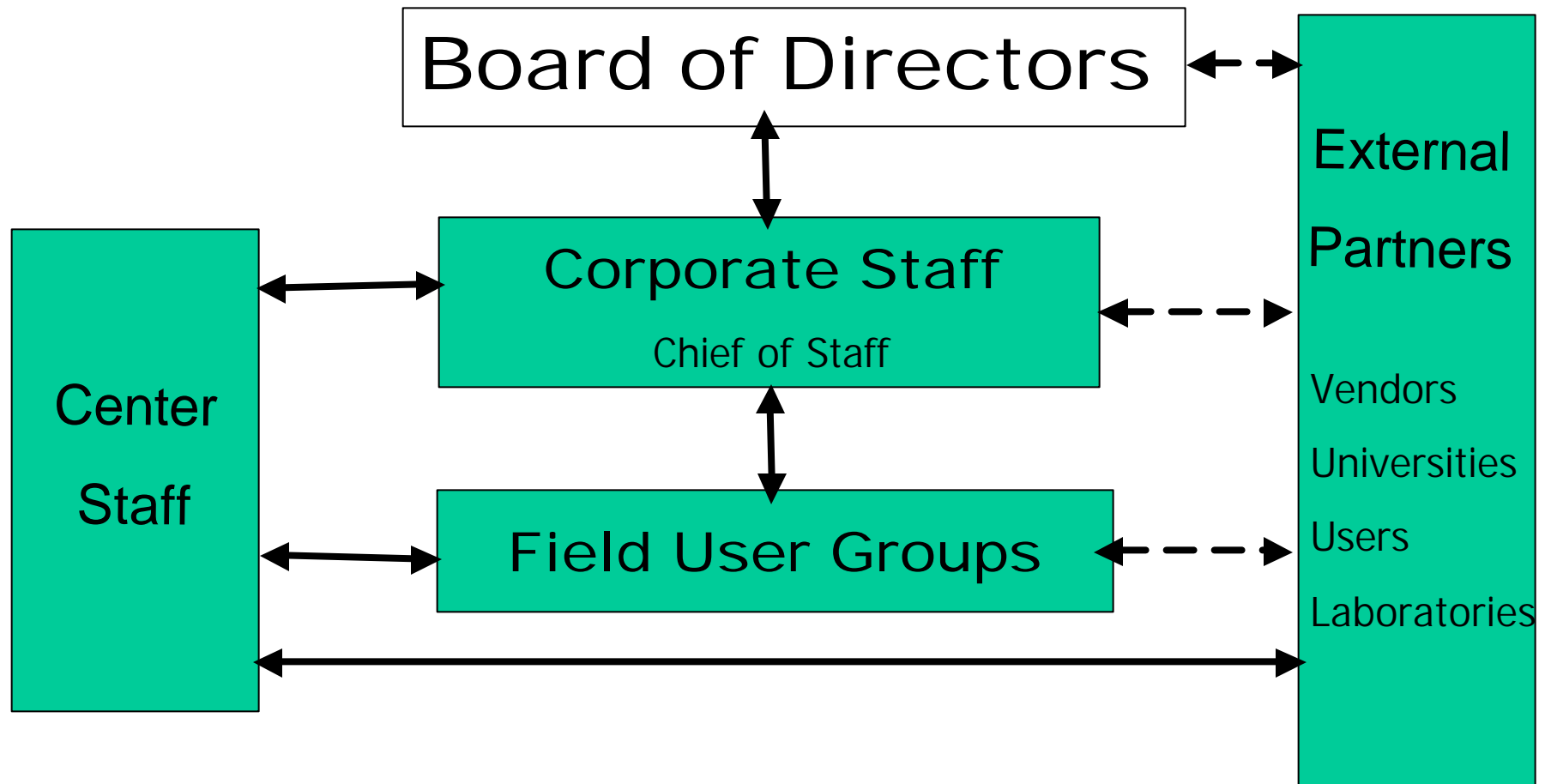**CADD/GIS TECHNOLOGY CENTER** for facilities, infrastructure, and environment

- **Participating Department of Defense (DoD) and Federal Government Agencies (as of January 2001):**
- **U.S. Army Corps of Engineers**
- **U.S. Army**
- **U.S. Navy**
- **U.S. Air Force**
- **U.S. Marines**
- National Aeronautics and Space Administration (NASA)
- Defense Logistics Agency (DLA)
- U.S. Coast Guard
- General Services Administration (GSA)
- National Institute of Building Sciences (NIBS)
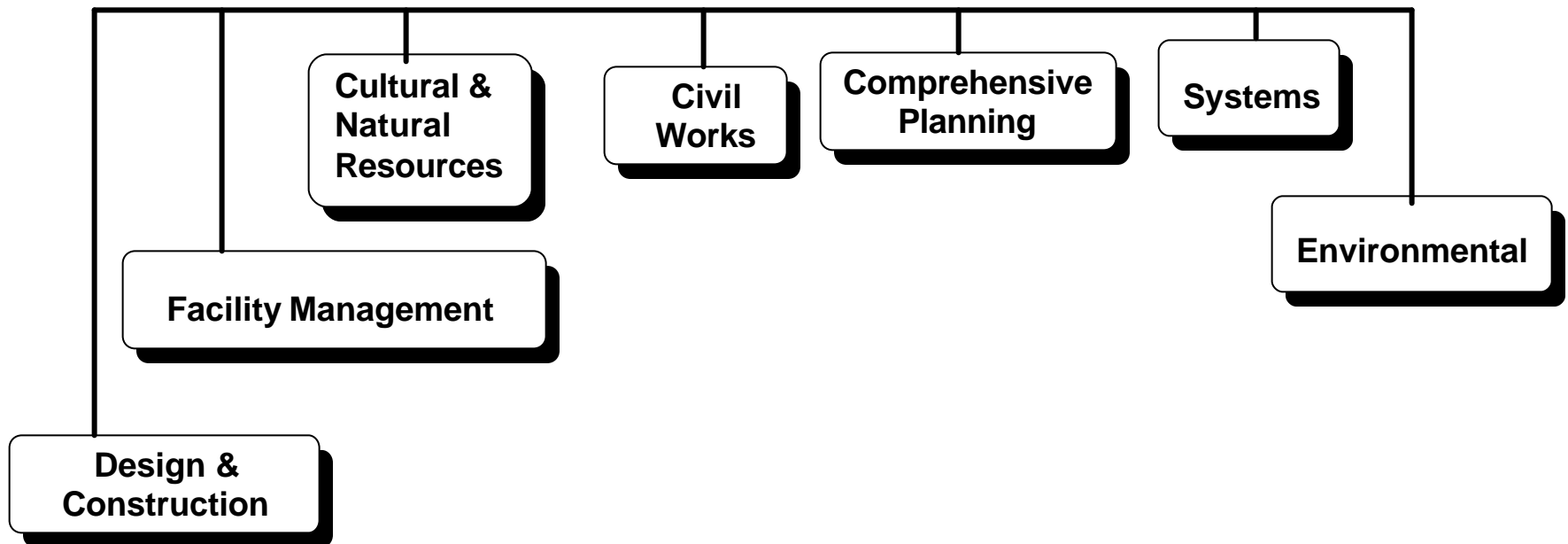- U.S. Environmental Protection Agency

- # **Our Mission**
  - To serve as a multi-agency vehicle to coordinate facilities, infrastructure, and environmental use of CADD and GIS activities within DoD and with other participating governmental (federal, state, and local) agencies, and the private sector.

CADD/GIS TECHNOLOGY CENTER
for facilities, infrastructure, and environment

**Board of Directors**

**External Partners**

**Corporate Staff**

Chief of Staff

**Center Staff**

**Field User Groups**

Vendors

Universities

Users

Laboratories

# Center Field User Groups

Cultural & Natural Resources

Civil Works

Comprehensive Planning

Systems

Facility Management

Environmental

Design & Construction

- **Role in Acquisition** -
  - Define technical requirements for CADD/GIS/FM software & hardware.

  - Manage large centralized CADD/GIS/FM software and hardware acquisitions.
    - Center currently manages the Naval Facilities Engineering Command (NAVFAC) FCAD2 contract for purchase of CADD/GIS/FM software and hardware by DoD and Federal Government.

- **Applications Development -**
  - Serve as a focal point for consolidation of CADD/GIS/FM software applications.

  - Rely on other organizations and the private sector to develop CADD/GIS/FM software applications.

- **Promote Communication  -**
  - Provide a vehicle to share information, programs, processes, techniques, and available training programs.

  - Record ideas and needs of DoD and participating agencies and coordinate with vendors and users in industry.

# Center Functions

- **Promote Standards  -**
  - Develop CADD/GIS/FM standards.

  - Provide information concerning benefits of using standards.

  - Promote use of standards.

  - Provide training on use of standards.

- **Furnish Technical Advise  -**

  - Serve as clearinghouse for advise on CADD/GIS/FM hardware and software issues.

- **Interface with Professional Organizations and Industry -**

  - Establish contacts and maintain working relationships with professional organizations and industry to aid in the coordination of standards for CADD/GIS and FM.

- **Evaluate Technological Developments  -**

    - Review and stay abrest of developments in CADD/GIS/FM software and technology.

- **Recommend Necessary CADD/GIS and FM Policy**
  - Develop policy, which is reviewed/approved by the Corporate Staff.

  - Ultimate goal is to create policy that is consistent across DoD and participating agencies.

- Current Efforts:
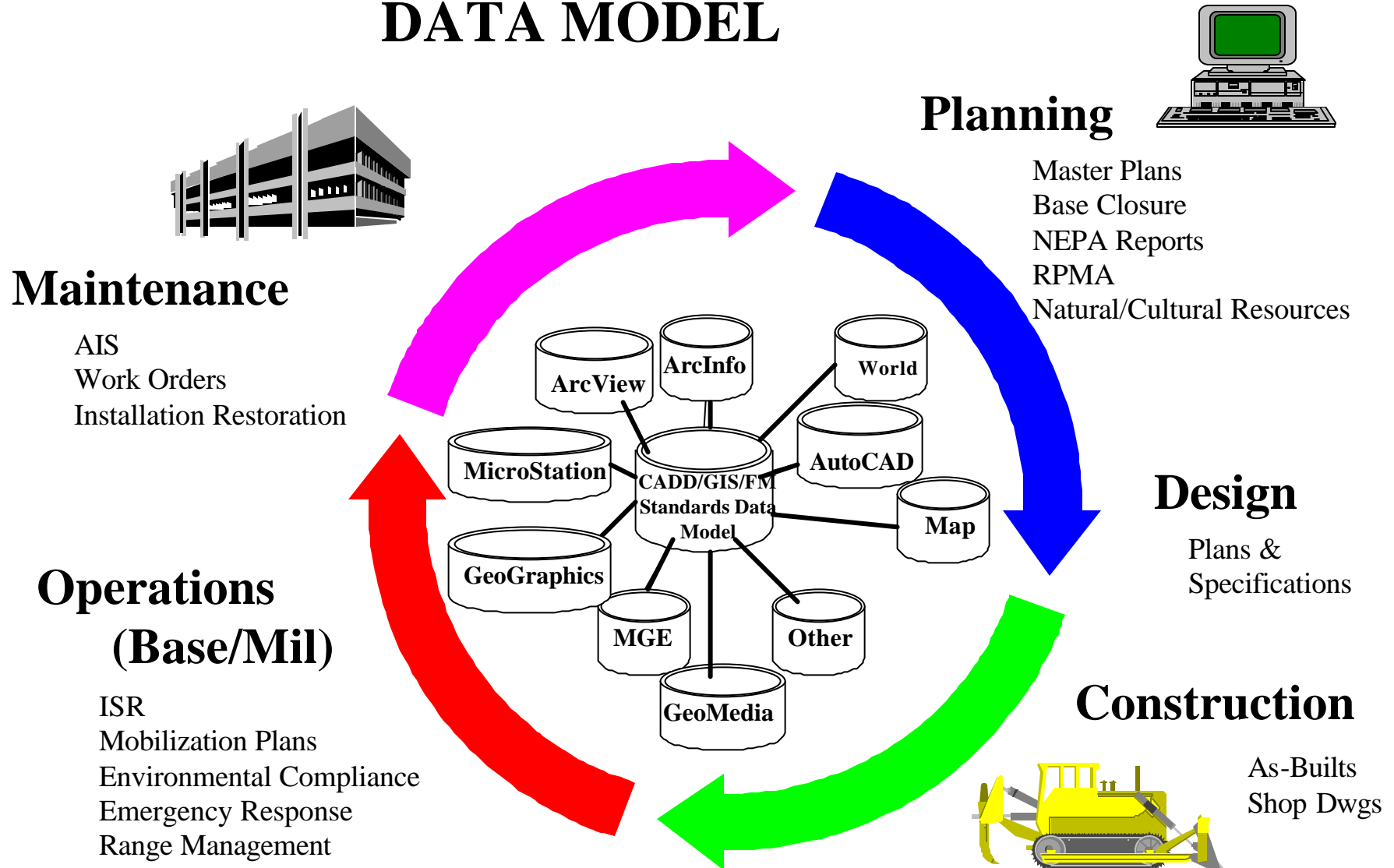  - Part 1.0 – Architect-Engineer (A-E) CADD & GIS Deliverables
  - Part 2.0 – Architectural/Engineering/Construction (A/E/C) CADD Standards
  - Part 3.0 - Spatial Data Standards for facilities, infrastructure, & environment (SDSFIE) (GIS)
  - Part 4.0 - Facility Management Standards for facilities, infrastructure, & environment (FMSFIE) (FM)
  - Part 5.0 - Electronic Bid Solicitations (EBS)

- Provides guidance for the preparation of Commerce Business Daily (CBD) announcements and contract provisions for use in acquiring the services of architect-engineer (A-E), and consulting firms, to prepare and deliver digital geospatial data and related products.

- Applies to geospatial data acquisition (i.e., surveying and mapping),  digital map and geospatial data development, and delivery of the digital data to the end user.

- A Task Group consisting of DoD experts  assisted  in development.

# PROJECT LIFE-CYCLE
# DATA MODEL

**Planning**

Master Plans
Base Closure
NEPA Reports
RPMA
Natural/Cultural Resources

**Maintenance**

AIS
Work Orders
Installation Restoration

**Operations
(Base/Mil)**

ISR
Mobilization Plans
Environmental Compliance
Emergency Response
Range Management

**Design**

Plans &
Specifications

**Construction**

As-Builts
Shop Dwgs

ArcView

ArcInfo

World

MicroStation

CADD/GIS/FM
Standards Data
Model

AutoCAD

Map

GeoGraphics

MGE

Other
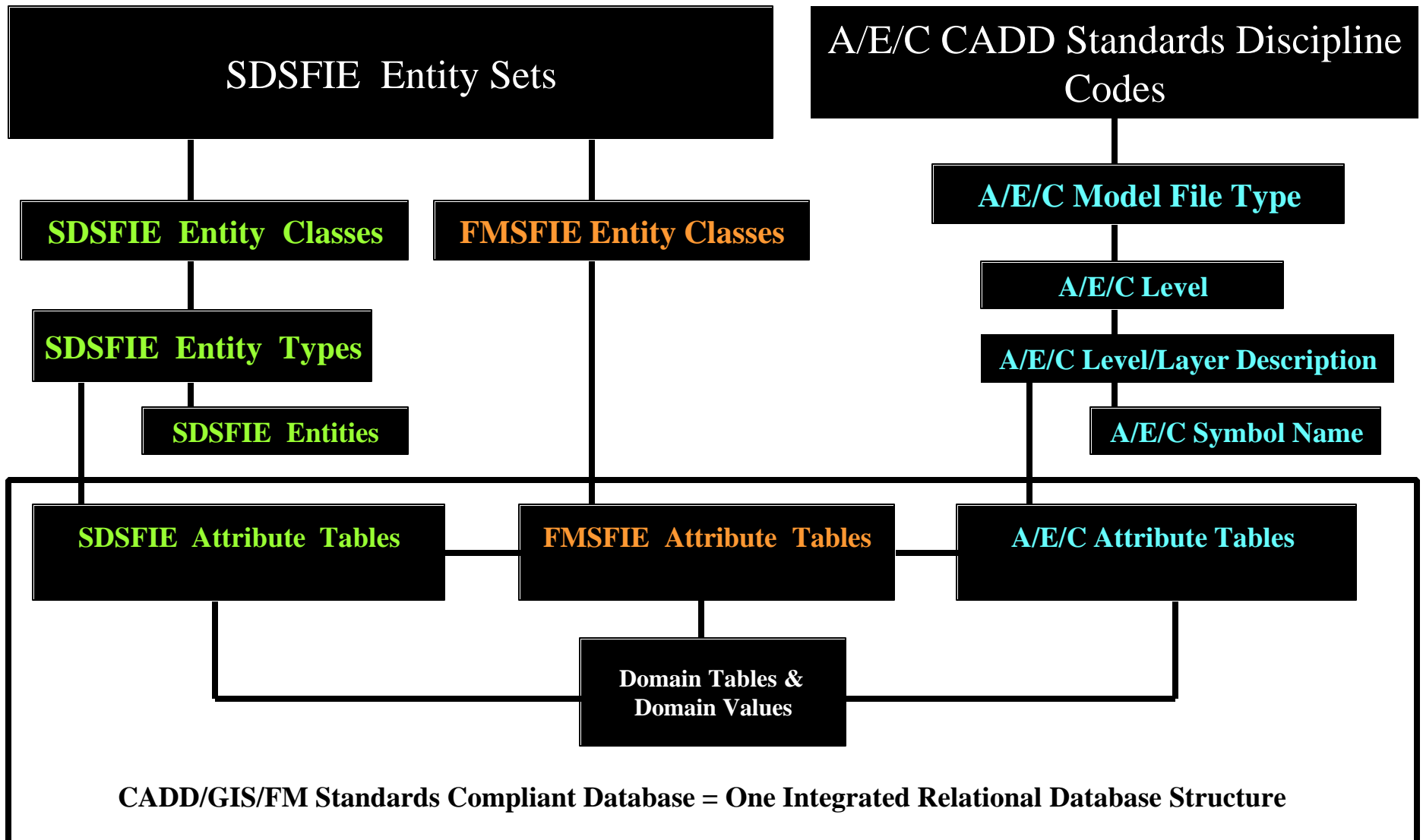
GeoMedia

# CADD/GIS/FM Standards Data Model

**(Option 1 concept for initial incorporation of FMSFIE with SDSFIE & A/E/C CADD Standards. Began with TSSDS/TSFMS Release 1.80, February 1999)**



**SDSFIE Entity Sets**

**A/E/C CADD Standards Discipline Codes**

**SDSFIE Entity Classes**

**FMSFIE Entity Classes**

**A/E/C Model File Type**

**SDSFIE Entity Types**

**A/E/C Level**

**A/E/C Level/Layer Description**

**SDSFIE Entities**

**A/E/C Symbol Name**

**SDSFIE Attribute Tables**

**FMSFIE Attribute Tables**

**A/E/C Attribute Tables**

**Domain Tables & Domain Values**

**CADD/GIS/FM Standards Compliant Database = One Integrated Relational Database Structure**

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